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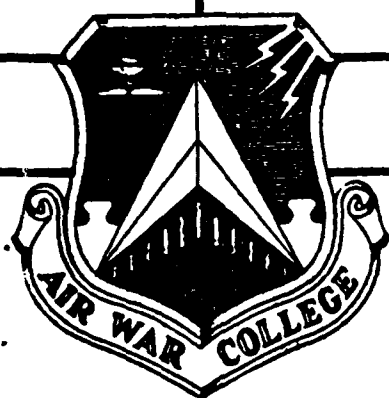
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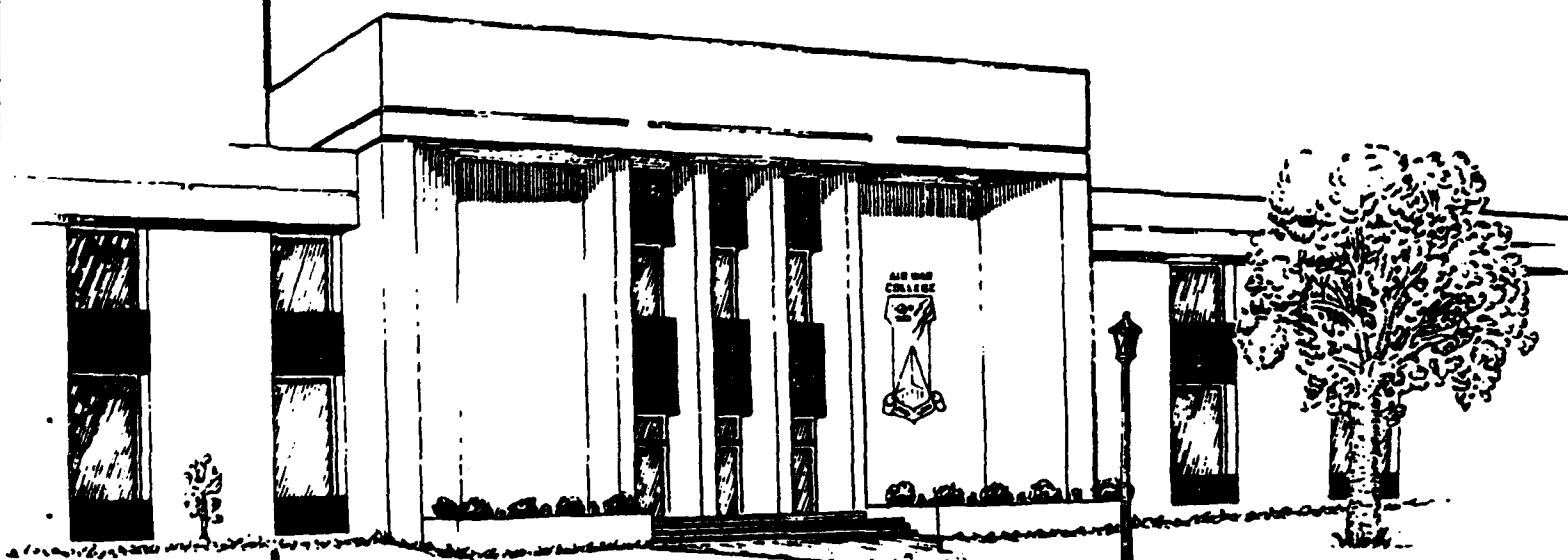
## RESEARCH REPORT

NAVY COMBAT SAR: PAST, PRESENT, AND FUTURE?

COMMANDER JOHN B. MILLS

1988

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AIR UNIVERSITY  
UNITED STATES AIR FORCE  
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NAVY COMBAT SAR: PAST, PRESENT AND FUTURE?

by  
John B. Mills  
Commander, U.S. Navy

A RESEARCH REPORT SUBMITTED TO THE FACULTY  
IN  
FULFILLMENT OF THE RESEARCH  
REQUIREMENT

Research Advisor: Colonel Joseph E. Ryan

MAXWELL AIR FORCE BASE, ALABAMA  
April, 1988

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## AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: Navy Combat SAR: Past, Present and Future?

AUTHOR: John B. Mills, Commander, U.S. Navy

Combat search and rescue (CSAR) in the U.S. Navy is a mission area of studied neglect. Although tasked through numerous directives to provide combat rescue coverage for its own forces, the Navy has yet to establish a viable capability to do so. In addition, there is no credible, dedicated aviation support for the SEAL's to conduct special operations/warfare (SPEC WAR). These two mission areas have received minimal attention since the end of hostilities in Southeast Asia.

The author chronologically outlines the lessons learned from each of the "Violent Peace" operations the U.S. has been involved in starting with Vietnam. He applies those lessons to today's situation, outlines the Navy's future plans and their shortfalls, and makes specific recommendations for a viable CSAR/SPEC WAR capability.

## BIOGRAPHICAL SKETCH.

Commander John B. Mills received his bachelor's degree from Washington State University in 1973. He entered Aviation Officer Candidate School and naval flight training at Pensacola, Florida almost immediately after college. He received his aviator's wings in June, 1974 and transferred to NAS Cubi Point, in the Philippines as a logistics and rescue (SAR) helicopter pilot.

Commander Mills has been associated with search and rescue his entire naval career and from 1983 to 1985 was the Chief of Naval Operations SAR Model Manager. In this position, Commander Mills was responsible for the standardization of SAR training and equipment Navy wide.

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# NAVY COMBAT SAR: PAST, PRESENT AND FUTURE?

## CHAPTER I

### INTRODUCTION

Battle Group Commanders (operating in the Arabian [Persian] Gulf today) want the capability to do CSAR (combat search and rescue) and anti-terrorist missions (special operations) with organic battle group assets. (1:1) I don't know if they have always wanted this capability, but they have always needed it. In actuality, as we will see later, there have been very few instances in naval history where this capability has existed in the battle group.

The interest in CSAR rises and falls with the world's political situation. When there is something "hot" going on and naval airpower is involved, we can never respond in this area fast enough. But, when the world is relatively tranquil, at least as to how it affects naval forces, there are no topics that would draw less interest than CSAR and special operations.

But, what is CSAR? It is the rescue of downed airmen before capture by the enemy. The "search" part of the equation in today's threat environment is quite minor. If we don't know with some certainty where the survivors are, the rescue crew more than likely will join them on the ground.

Then why doesn't the Navy have a dedicated CSAR force? Rear Admiral Paul T. Gillchrist (OP-50) testifying before the House Armed Services Subcommittee on Readiness in April, 1983 stated:

Finding a way to provide for an adequate capability to perform the Combat Rescue mission has been a difficult and frustrating experience within the Navy. Overall, for the Navy as a whole, we must provide for capabilities in three separate warfare areas:

--Strategic Deterrence.



--Control of the Seas, and

--Force Projection.

Unfortunately for Combat Rescue, our limited resources are allocated to meet mission needs in the Priority order listed above. (2:6)

Then why is CSAR necessary? Admiral Gillcrist also testified that:

The National, Department of Defense, Joints Chiefs of Staff and Navy directives on Search and Rescue Policy...state: First, that each military component of the Department of Defense is responsible for providing rescue capabilities in support of its own operations; Secondly, and more specifically, that rescue operations in support of a naval task force are the responsibility of the task force commander. Also, and equally applicable to the Navy, is the JCS Policy that rescue operations in support (of) tactical operations in a battle area are the specific responsibility of the tactical commander. (2:2)

The above states the requirement for CSAR, but not really the "why". LCDR Kerry Sullivan listed the following six "whys" in his 1984 Naval Institute Proceedings article on CSAR:

--Morale of the aircrews. (It only makes sense that someone would push their weapon system harder knowing that if they were shot down, someone would be coming after them. They had that assurance in Vietnam, but as things stand now TACAIR crews in the next conflict won't.)

--Return of critical manpower assets. (The current cost of training a TACAIR aviator is several million dollars, but more critical is the crew's experience. That can be replaced only with time. Rescued aircrews are actually a force multiplier.)

--Denial of intelligence to the enemy. (The positive aspects of this are obvious.)

--Protection of Americans against being taken hostage. (The psychological hold hostages can have on this country can be significant as history has shown us.)

--Greater chance of special warfare operations capability. (CSAR and Spec War are compatible missions, and their

combination would certainly fall under the Navy's Force Projection mission.)

--Enhanced rescue capability for war at sea. (3:1) (The Falklands War is discussed later in the text and illustrates dramatically the need for a larger at sea rescue force.)

I agree we need to fund and structure our force to deter war, and to win war if deterrence fails. That is the obvious business of the military and why we get paid. However, since World War II the military, and in particular the Navy has been called upon to deal with political irritations using military means. We have had many aircraft shot down during these evolutions with no organic capability to extract them from harm's way. Some of these "undeclared war" scenarios could have been aided with a special warfare capability that is definitely lacking in the active duty Navy. We have the SEAL's, but they have no airborne platform to get to the war, much less effect a combat rescue.

How much of a problem is our lack of a viable CSAR posture today? The problem is severe and little is being done to correct it. The details of what is wrong are on the following pages. First, we will look at the past, and the origins of CSAR and its lessons. We will then look at the present and see where we are today and what programs are planned for the future. Lastly, is a list of recommendations of what I think the Navy should be doing.

If there is a problem, whose is it? First, I thought it was a TACAIR problem because they are the ones that get shot down. It is their problem, but they remember Vietnam and still believe someone will come after them. Then I thought it must be a helicopter community problem because they are the ones shot down when tasked by the Vietnam era battle group commander to rescue the downed TACAIR crew. They have been trying to do something about the problem, but have not had the lobby in the Pentagon to fix it. Papers like this

one are Preaching to the choir when read only by the Navy rotary wing community.

So if TACAIR won't fix Navy CSAR and the helicopter community can't fix it, then who will? Eventually the lack of a CSAR capability will be the Problem of the Political and naval leadership of this country when they have to answer to its People. As CDR Dan Hartley wrote in 1983: "The reasons for this unpreparedness are due not to inability but to studied neglect. The Navy simply does not seriously concern itself with the Problems of combat rescue until after the fact. This is a historical reality, and it is inexcusable". (4:63)

## CHAPTER II

### THE PAST

We cannot adequately present the current status of Navy CSAR or chart a coherent course for its future without looking at where it has been. This chapter is dedicated to Navy experiences from Vietnam to the Present. Military history has allowed us to avoid innumerable pitfalls by learning from it. Navy CSAR is no exception if we will only pay attention to history's teaching. However, our military leaders are often criticized for planning for the next war by preparing for the last one. In other words, basing force structure, weapon system acquisition, strategy and tactics on previous conflicts without regard to changing technology or threat. However, we have done so little in CSAR almost any money spent would be beneficial, but having said that we need to avoid the Vietnam pitfall. There are some good lessons to be learned from Vietnam which I hope to point out, but we must avoid the trap of what worked then will work now and in the future.

### VIETNAM

Navy combat rescue in Vietnam was both triumphant and tragic. Over 200 successful openwater rescues were accomplished without an aircraft mishap or loss of life. Navy combat rescue has been considered by most naval historians to have been a major area of success and described as "...one of the bright spots of the Vietnam War." (5:120) Vice Admiral Cable wrote that, "One of the truly great success stories of Task Force 77 operations in the Gulf of Tonkin is the development...of a combat search and rescue

capability..." (6:89)

In his account of Task Force 77 operations in Vietnam, Admiral Cagle eloquently stated the importance for the CSAR mission and its very positive impact on the morale of the fighter and attack pilots. They knew that if they were shot down everything humanly possible would be done to take them out of harm's way.

The reality of the evolution of combat rescue in Vietnam is best depicted by this account:

The lessons which should have been learned during Korea were soon forgotten, and in early 1966 Helicopter Combat Support Squadron One (HC 1) was again tasked with Combat SAR. This time for North Vietnam. The forward base of operations became HC 1 Detachment (DET) Cubi Point, Philippines and the mission was to provide logistics support for aircraft on Yankee station, retrofit spare H-2's for combat missions, and provide a training ground for SAR crews. Retrofitting an H-2 involved stripping the aircraft of as much weight as possible and adding steel plates to the pilots' seats and around the engine doors. This "armor plating" actually served more of a psychic protection for the crew than actual protection because it could be easily pierced. Self sealing fuel cells were installed, an M-60 was mounted on each door and the helo was considered an armored, combat ready vehicle which was assigned to a detachment. The crew sat on ammunition boxes (the seats were removed for reduced weight) and flak jackets were spread on the floor to offer some protection against small arms fire. (7:19)

Indeed, the heroism displayed by the helicopter SAR crews, was exemplary, but one SAR crewman was killed and one SAR aircraft was lost for every two rescues accomplished in North Vietnam, either inland or from protected waters off the coast. (8:40) One of those helicopter pilots cited by Admiral Cagle for his heroism was Medal of Honor recipient Lt. C.E. Lassen, USN. (6:93) After his retirement, CDR Lassen provided this assessment: "The Navy's experience with combat SAR in North Vietnam was a classic example of 'how not to do it'. We were totally unprepared, untrained and with few assets. As a consequence the TACAIR and helicopter communities paid dearly." (7:19)

The perception held by most Vietnam era Navy leadership, was basically that a helicopter is a helicopter. Whatever

one can do they all can do. This tended to be true where equipment and training were common, such as unopposed overwater rescue. Of course, the opposite was true as well. Navy rescue success rates in Vietnam were 97 Percent with no threat, 82 Percent with a small arms threat, 60 Percent against small arms and light antiaircraft (AAA) weapons, and a 6 Percent recovery rate within heavy antiaircraft artillery range. Rescues were not attempted against surface-to-air missile (SAM) threats. (9:1)

This unacceptable attrition of CSAR assets proved that dedicated training, equipment and Personnel were required. The concept that any helicopter can do anything was abandoned with the commissioning of Helicopter Combat Support Squadron Seven (HC 7). This squadron, formed solely for the CSAR mission, rescued over 150 Pilots from the combat zone without the loss of one aircrew due to enemy action. (10:9)

It was dedicated training, Personnel and equipment that made the difference. This is the lesson we must learn and not forget. The threat is different, the tactics are different and technology has changed but, the basic premise of sending a properly equipped, trained and manned force to do a job is constant.

With the end of hostilities in Vietnam came the decommissioning of HC 7. Its assets were split into a detachment of HC 1, an active duty squadron, and HC 9, a new reserve CSAR squadron. In 1978, the HC 1 det was disestablished, in the wake of the post war budget cuts, and its assets given to HC 9. Active duty CSAR involvement ended while HC 9 is still flying those same Vietnam vintage aircraft.

Hanson W. Baldwin wrote, "a nation's combat Potential is no stronger than the will of its People". (11:25) One only has to recall the agony our nation went through with the captivity of our POW's, by the North Vietnamese, to

understand the devastating effect it had on the will of the American People to fight.

Of the 321 naval aviators that were downed over North Vietnam or close to its shore only 169 reached the ground alive. Of these, only one in six was rescued. (8:40) We have spent millions on improving the deficiencies that killed those 152 aviators that didn't reach the ground alive. Better ejection seats, more survivable airframes and better designed fuel systems are much needed improvements. However, we haven't spent anything to improve that one in six chance of being rescued. Being a survivor is only half the equation in search and rescue. Two weeks after the evacuation of Saigon, U.S. forces were rapidly deployed to recover the American container ship, the S.S. MAYAGUEZ. (3:5)

#### S.S. MAYAGUEZ

On May 15, 1975 a joint force of Marine ground troops and Air Force helicopters assaulted the island of Koh Tang. The threat consisted of intensive small arms fire. Of the 14 helicopters that participated in the assault and subsequent evacuation, three were destroyed and ten were damaged. Significantly, the HH-53 crews, who were trained in combat rescue, were twice as successful as the logistical CH-53 helicopter crews. (12:54) A similar lesson was demonstrated in Iran.

#### DESERT ONE

The attempt to rescue the American hostages held in Iran was a breakthrough in rotary wing tactics. Never before had helicopters navigated and flown over 1,000 miles at night, at 100 feet with the crew on night vision goggles (NVG's). A tremendous feat. In fact, there was probably more

accomplished tactically in that one mission than ten years of research and development.

Although ultimately unsuccessful, the Iranian hostage rescue attempt underscored the need for dedicated equipment and training to conduct special operations in the world today. Also, it again pointed out that it is easier to retrain aircrews in a different aircraft than a different mission. The RH-53D minesweeping helicopters that were flown on the mission were chosen for a number of reasons, but primarily for having the best range. However, there was not time to turn minesweeping aircrews into NVG assault pilots. Most of the Navy helicopters were manned with Marine Corps CH-53 pilots.

#### FALKLANDS

LCDR Sullivan, wrote the following text on the Falklands, which is a tremendous account from a rescue perspective:

The important roles that helicopters played during the Falklands conflict bear some significance for CSAR in modern naval warfare. The two carriers and the nine other classes of destroyers and frigates in the task force all operated helicopters, many doubling their normal complement. Three of these uses for the helicopter are relevant to the U.S. Navy's CSAR mission.

After the loss of the helicopters on board the container ship Atlantic Conveyor, a squadron of ASW Sea Kings (designated by the United States as H-3's) was converted to support the land campaign. This squadron was issued night vision goggles; their crews became proficient in using these after only a few hours of training. They were able to fly in total darkness 20 feet above the sea and insert teams ashore, a viable tactic for CSAR helicopters. The British could afford to use these ASW helicopters for a different mission despite the serious submarine threat because their carriers operated three times as many H-3 type aircraft as a U.S. carrier does. Covert operations preserved these unprotected helicopters.

The British Army Gazelle helicopter was designed for reconnaissance and command-and-communication missions. Its lack of offensive armament in a country devoid of natural cover made it vulnerable to ground fire. Efforts are now under way in Great Britain to enhance its battlefield survivability.

Finally, we should draw a lesson from the importance



of helicopter SAR to the British task force. The rapid helicopter response to HMS Ardent, which had received two 1,000 Pound bomb hits aft, rescued about 200 men from the fire and the water before other vessels could arrive. After the loss of HMS Sheffield and Ardent, the task force commander, Rear Admiral Sandy Woodward, held HMS Coventry back from a better Sea Dart missile employment position to keep her within rescue range. When the Coventry was hit the next day, every available helicopter was vectored to her position. Helicopters saved 283 crewmen, and only 19 men were lost. The task force consisted of about 150 helicopters. A similar U.S. Navy two-carrier battle group would deploy with about 10 percent of that number. (3:7)

#### LEBANON

The surface-to-air missile (SAM) threat in Lebanon was lethal and CSAR planning reflected it. The Vietnam era fix of flak jackets and .38's for the H-3 crews was conspicuously absent. HC 9, the reserve squadron and only Navy asset tasked with CSAR, had a detachment of two pilots and two rescue crewman aboard the CTF 60 flagship for CSAR contingency planning.

Utilizing all available intelligence, surveying the assets available and taking into account the environmental factors of the region, such as terrain and temperature, a matrix similar to the one at the end of this chapter (see figure 1) was developed. From this matrix the battle group commander could intelligently and safely, as possible, choose the right asset to employ on a CSAR mission based on the asset's capability and the anticipated threat.

When the air strike on Lebanon occurred, and our attack aircraft were downed, the follow on aircrew extractions were done safely and expeditiously. Only Lt. Robert Goodman, who was captured almost immediately, could not be recovered.

Remember the response of our nation when Lt. Goodman's picture appeared on the evening news? People were angry that "they" had an American. They politicized this as much as possible, only releasing Lt. Goodman to one of President Reagan's rival candidates during the 1984 Presidential campaign. (13:61) I call this episode, Jesse Jackson's

combat rescue.

## LIBYA

For the raid on Libya, CSAR coverage was tasked to the battle group's HSL detachments, also ASW assets, which were positioned on the escort ships. The bombing raid was successful except for the loss of one U.S. Air Force F-111 whose crew was never recovered. Once again crews not trained or equipped for the specialized CSAR mission were called upon to perform it.

A specialized CSAR unit was stationed aboard one of the carriers. However, the operational security to get them into the theater undetected was a formidable task. Furthermore we totally controlled the time table for the Libyan raid. In most real world scenarios the U.S. must respond to someone else's agenda, not set it. The bottom line is that in most situations there isn't time or we can't afford the operational security (OPSEC) risk to get a specialized unit into the theater. The battle group commander is going to go with what he has available, i.e. his HS, HSL, HC or HM organic helicopter assets.

### MATRIX THREAT LEVELS

THREAT LEVEL NO. 1 relates to: SECURE OVER WATER SAR

THREAT LEVEL NO. 2 relates to: SECURE OVER LAND SAR

THREAT LEVEL NO. 3D relates to: DAY OPERATIONS; OVER LAND SAR  
WITH LOW DENSITY SMALL ARMS

THREAT LEVEL NO. 3N relates to: NIGHT OPERATIONS, OVER LAND SAR  
WITH IR MISSILES AND SMALL ARMS  
PROBABLE

THREAT LEVEL NO. 4 relates to: OVER LAND SAR WITH LIGHT DENSITY  
AIR DEFENSE SYSTEM

THREAT LEVEL NO. 5 relates to: OVER LAND SAR WITH MEDIUM  
DENSITY AIR DEFENSE SYSTEM

THREAT LEVEL NO. 6 relates to: OVER LAND SAR WITH HEAVY DENSITY  
AIR DEFENSE SYSTEM

(THIS IS TAKEN FROM A DRAFT NAVY CSAR MANUAL, BUT IS  
REPRESENTATIVE OF THAT USED FOR PLANNING THE LEBANON  
OPERATION.)

FIGURE (1)



## CHAPTER III

### THE PRESENT

In 1982, CDR Lassen wrote:

The Navy is less prepared now for SAR than at the outbreak of Vietnam. In the 1960's there were enough helicopters that could be diverted into the Combat SAR role, in addition there was no ASW threat and we unquestionably held air superiority. At present there are not enough helicopters to even meet the ASW commitment and we cannot count on air superiority or the comfort of unlimited Naval operations without the ASW threat. In even a limited engagement, with an ASW threat, every ASW capable rotary wing asset will have to be devoted to ASW.

I think this description, particularly in view of today's threat, is just as true now as it was then. With the exception of the SH-60, we are still flying the same aircraft that we did in Vietnam. And, both versions of the SH-60 are designed for ASW. But, what is the threat?

### THE THREAT

In Vietnam, the threat to rotary wing aircraft was primarily small arms (7.62 and 14.7 mm) and antiaircraft artillery (AAA). It proved quite effective against our unarmored, 1950's technology helicopters (that we are still flying). Today, the SA-6, SA-7, SA-8, SA-9, SA-14, SA-16, and the ZSU-23 and its follow on version all dwarf the threat the Navy faced in Southeast Asia. In addition, our's and our allies weapons such as the Stinger, Red-Eye, Hawk, Roland, Chaparral and Crotale, to name just a few, are increasingly being found in Third World nations around the globe.

Since the advent of the Soviet MI-24 Hind helicopter, rotary wing attack aircraft are appearing everywhere. They are relatively easy and inexpensive to build and provide a formidable air-to-air threat, particularly against our

unarmed ASW and logistic helicopters.

The sophistication of the fixed wing threat has continued unabated since Vietnam. Very few scenarios will have our helicopters as primary targets. However, they will always be a "target of opportunity" for those fighter and attack aircraft with expended munitions on their way home. By definition, CSAR aircraft have a good chance of encountering hostile TACAIR while going in harm's way to extract downed friendly aircrews.

The advent of lasers for targeting, range finding, weaponry, etc. has opened a whole new chapter in the vulnerability envelope. Damage from temporary blindness of the pilots to direct destruction of weapon systems is within the potential of this relatively new threat. Training and countermeasures against lasers are in their infancy and practically nonexistent in the Navy rotary wing community.

So what is the importance of all of this? Navy helicopters fly over water so what is the big deal? All of the above threats are now at sea. It is no surprise that the Soviet Union currently possesses the greatest "at sea" threat. But, many nations have at least some, if not all, of the above capability.

U.S. Navy helicopters have flown in such a benign environment for so many years that we employ no weapon countermeasures on our aircraft. The only offensive weaponry we carry are the hard boiled eggs in our box lunches!

CNO SAR Conference action items 79-66 and 79-68 on lack of CSAR training and equipment respectively, come up annually at the SAR Conference (the 79 refers to the 1979 conference where these two action items originated). Solid recommendations to address these shortfalls are forwarded by the conference through the minutes to OPNAV every year. To date, little to no action has been taken on these recommendations. Lack of funding is the stated reason.

The fixed wing community has studied "their threat" since the inception of naval aviation. The rotary wing community, with the exception of HC 9, has not seriously studied "Ivan's" capability since Vietnam and now we can't afford not to. U.S. Air Force Manual MCM 3-1 (Secret) describes the world's threat better than any manual I've seen and should be a part of every Navy squadron library. Since it replaces our own NWP 12-1 and NWP 12-8 every squadron should be on distribution.

There is actually a series of manuals to the 3-1. The Air Force has written specific volumes for each of their fixed wing aircraft. Each manual deals specifically with how to defeat or fight each threat weapon system with their organic defensive and offensive weapons, or specific maneuvers. A volume is conspicuously absent for any rotary wing aircraft. The Navy is obviously not alone in this problem.

The Foreign Science Technology Center (FSTC), in Charlottesville, North Carolina, is the agency tasked with threat analysis of foreign weapon systems as they apply to helicopters. The bulk of their effort is directed to the overland threat, which is understandable with the Army being their major client. However, they are also tasked with the overwater threat as well. Many foreign weapon systems have overwater application, and when pressed, FSTC acknowledges this. But, no one is pressuring the intel community to research and disseminate helicopter overwater threat information. Someone needs to. (14)

#### ARABIAN (PERSIAN) GULF

Much of what is going on in the Arabian Gulf (the Gulf's original name which our Arab friends prefer) today is classified. It is safe to say, however, that Navy helicopter

crews are doing missions that they are not trained or equipped to do. Because of the obvious short fall in equipment, "bolt on" systems are being shipped and installed on Navy helicopters in the Gulf. What is missing is training on the threat and how to use the systems being installed to defeat it.

ASW squadrons and detachments anticipating duty in the Gulf, have inundated Marine Aviation Weapons Training Squadron One (MAWTS 1) and HC 9 with training requests on how to operate in a hostile environment. Both squadrons have responded to every request, helping in every possible way. Their cooperation has come at the expense of their own training programs, but there are no Navy active duty units to provide this much needed training. And, there are no active units all ready trained and equipped to do the job in the Gulf. (14)

The Arabian Gulf commitment also requires a special warfare capability for contingency operations. Once again the SEAL's required a dedicated aviation platform. Assets from another service had to be brought into the Gulf, because of no organic battle group capability. In this era of jointness, this arrangement may not sound like a detractor, and with the world's current situation it may not be. However, there was an initial delay in getting the unit to the Gulf and developing operating procedures to integrate the nonnaval force into the shipboard environment. More importantly, these are specialized forces, and it is impossible to guarantee their availability to the Navy for future operations.

#### ROC/POE CHANGES

After Vietnam, the required operational capability (ROC) mission statements of the HS squadrons were changed so that



they would not be used for CSAR again. As CDR Dan Hartley wrote, "In the Vietnam conflict, these same assets were vulnerable in a low threat environment. In today's combat environment, their commitment would result in virtual annihilation." (4:60) The HS mission statements have recently been rewritten to include CSAR. This is the third iteration of the HS ROC, concerning combat rescue, in the last decade.

The obvious logic for the change in the HS mission statement is that it drives equipment and training. It only makes sense to spend money on hardware and training for something you are going to be tasked to do. This being done, a POM submission for combat SAR kits was initiated. These are admittedly sophisticated equipment suites for the SH-60F (it was too expensive to outfit any of the SH-60Bs). The plan is to put two of these kits on each of the carriers and install them as the situation dictates. Again, this is reminiscent of Vietnam where the ASW equipment was removed, the crew donned flak jackets and machine guns were placed in the doors. The proposed CSAR kits are much more sophisticated than the Vietnam "bandaid" for a much more sophisticated threat. The common thread is lack of training and the rerolling of ASW assets.

We tried to take "off-the-shelf" crews and equipment and send them in harm's way in Vietnam and failed miserably. The POM 90 submission (there was no money in '88 or '89) is for 30 kits. With eventually 15 carriers and two kits per carrier, it doesn't look like there will be any for the FRS's to implement initial training. This means the crews will commence training when the shooting starts. Haven't we invented this wheel before? And, how can we make plans and procure hardware that assume there won't be an ASW threat?

Now that I have led you down this path, the money just recently fell out of POM 90 for the CSAR kits. I wanted to

detail the above Plan because it is disturbing. HS squadrons once again are officially tasked with a mission for which no training or equipment exists. It is as CDR Dan Hartley wrote in 1983, "It appears that combat rescue for Navy aircrews is based on an assumption that it will somehow occur rather than a Policy that it shall occur. Until Navy leadership lends total support to a 'shall occur' Policy, there will be no viable capability for rescuing downed airmen in combat". (4:50)

CDR Lassen had this to say: "Millions of dollars are spent developing a TACAIR Weapons System and training the Pilots who will in turn spend their entire career preparing to engage the enemy. Yet the helicopter community has been expected to scramble during the eleventh hour to retrofit a helicopter for SAR duty, train themselves and fly combat missions." (7:19)

#### TRAINING

Primarily because of events in the Arabian Gulf, there have been several meetings in 1987-1988, between the helicopter communities on the East and West coasts with OPNAV representation. These meetings have primarily addressed the CSAR (or strike rescue, as many are now calling it) training issue. At this writing, there is no definitive solution, but recommendations being forwarded up the chain, out of the U.S. Navy Helicopter Tactical Flight Training Conference hosted by MAWTS 1 on 1-2 February, 1988 are:

--HC 9 train two crews from each HS squadron and each HSL detachment deploying to the Arabian Gulf in strike rescue according to the Proposed HC 9 syllabus. This would include training in threat awareness, terrain flight (TERF), night vision goggles (NVG's), map interpretation (MITAC), low level navigation, evasive maneuvering (EVM), mission planning and

SPEC WAR.

--Immediately designate two Pilots from each Navy helicopter community (HC, HS, HSL and HM. After Iran, the HM community picked up the noncombatant evacuation operations or NEO mission.) to be Strike Rescue Instructors or RSI's. Once trained by HC 9 and MAWTS 1, they would train Navy units requiring "hostile environment training."

--These RSI's would form the initial cadre for a Navy Helicopter Tactics School (HTS) that would develop training and tactics for the Navy rotary wing community. It would also include the CSAR Model Manager who would lead the RSI's.

--To initially house HTS, the following locations, in descending order of preference, were recommended:

---Strike University

---MAWTS 1

---HC 9

--Sites to permanently house HTS in order of preference are:

---NAS Ft. Meigs, California

---NAS Pensacola, Florida (14)

I have been told at various times that the helicopter community cannot absorb any more training, but the benign environment at sea that we have enjoyed for over a decade is ending. Out of necessity, training requirements will increase, but the Navy helicopter community has to be careful not to advertise a "bandaid" as a CSAR/SPEC WAR capability.

## CHAPTER IV

### THE FUTURE

Where are we going? What is Planned to correct our CSAR shortfall? The answers are interesting, but not wholly Pleasing.

### HCS CONCEPT

The HCS concept emerged from a dual concern about a Poor CSAR capability and a lack of dedicated air support for the Naval Special Warfare mission (SPEC WAR). Both missions are assigned to the naval reserve. CSAR, as mentioned earlier, is HC 9's Primary responsibility and SPEC WAR is assigned to both HAL 4 and HAL 5.

Although the CSAR and NSW missions differ, the same covert tactics and flight regimes are used. The capabilities of the HAL 4 and 5 aircrews were readily recognized by the SEAL's, but the limitations of the HH-1K helicopter caused them concern.

Early in 1983, Commander, Helicopter Wing Reserve (COMHELWINGRES) forwarded a Proposal to the Chief of Naval Reserve that recommended combining the HAL and CSAR assets of HC 9 into two Helicopter Combat Support Special (HCS) squadrons. (15) This Proposal was accepted and the first HCS squadron, HCS 5, will be commissioned in October, 1988, at NAS Point Mugu, CA.

Integral to combining the two missions, is the Purchase of a new aircraft to replace the aging HH-1K and HH-3A. The Sikorsky HH-60H is being Procured to meet this need, with the first one scheduled to arrive at HCS 5 in June, 1989. Initial operational capability (IOC) is scheduled for

February, 1990. At this time HC 9 will be decommissioned. The HAL 4 to HCS 4 transition will then begin.

The HH-60H is a quantum improvement over the H-1 and H-3. It is a much more survivable airframe, has greater speed and range and will be equipped to operate in a hostile environment. A total buy of 18 aircraft is funded to outfit the two HCS squadrons.

Eight active duty training and administration of reserves (TAR) officers will be assigned to each HCS squadron. This is above the normal complement of four TAR's to provide an active duty contingent to respond to real world situations.

The marriage of combat rescue and special warfare is a natural one and long overdue. In a high threat scenario the survivability of any rescue vehicle is tenuous. The covert insertion of a ground team to aid the downed aircrew escape and evade from the enemy until reaching a SAFE (selected area for evasion) area may be necessary. SAFE areas are preselected and located where extraction of the ground team and survivors can take place with a good chance of success.

The SEAL's are equipped and trained for the CSAR mission, but until HCS there is no real air capability to support them. The obvious advantage for SPEC WAR in HCS is the mission specific aviation support they would gain for their operations. What is going on in the Arabian Gulf today is a prime example of the need for this capability.

JVX

Once again returning to the Readiness Subcommittee of the House Armed Services Committee hearings on their concern of the state of combat rescue in the armed forces, Rear Admiral Paul T. Gillchrist, Director, Aviation Plans and Requirements Division (OP-50), testified: "There is no

question that our capability to conduct rescue operations under air combat conditions is inadequate both in numbers and in equipment capabilities". (2:11) He also argued quite persuasively that the Navy's CSAR state would remain that way until the Power Projection shortfalls from the 1970's meager defense budgets were ameliorated.

The admiral's solution to the CSAR Problem was: "...the Navy has an approach to meet our Combat Rescue requirements -- this is the multimission, Joint Advanced Vertical Lift Aircraft (JVX) Program, which is to be developed to be a multiservice VTOL aircraft, capable of conducting a variety of combat missions including Search and Rescue". (2:14) He also stated the force structure would be "two active and one reserve HC squadrons." (2:16)

The Readiness Subcommittee's report on the hearings stated: "The survival and rescue Policies of the services are in sad disarray. The committee found evidence of a disjointed, uncoordinated, neglected and totally unsatisfactory level of effort among and within the services." (16:158) Based on this Congress allocated several million dollars over and above the Navy's budget to Procure nine H-60's for HC 9 as an interim fix until the distant arrival of JVX. This was the "seed" money that HCS has grown from.

In 1982, working as the Assistant CNO SAR Model Manager I contacted a member of the OP-50 Aircraft Requirements Staff. I queried him of the Probability of JVX filling the CSAR role. He replied: "We received direction from Secretary Lehman (then Secretary of the Navy) to look at JVX for applicability in 16 different mission areas. To keep controversy to a minimum among many Parochial interests and to keep the Program alive we stated the Navy was buying JVX for combat rescue. We knew no one would argue that we needed help there. Whether it will ever be Procured for CSAR is

questionable."

Bell and Boeing Vertol won the JVX competition with their tilt rotor design. It has been designated the V-22 Osprey and, at this writing, remains a fully funded program for the Navy, including combat rescue. However, the estimated delivery date for the proposed CSAR version is the "mid 1990's" (this timeframe is a slip of at least three years from the 1992 IOC that was espoused in 1985 when I was last following JVX development). (17) This is beyond the current five year plan and, in the present fiscal environment, is hardly a capability we can count on.

V-22 technology is exciting and could enhance fleet operations in many areas, such as: logistics and ASW. But, the aircraft is nearly three times the size of the H-60 and, as a CSAR vehicle, would be an extremely large target. Additionally, it would be severely limited in the size of rescue zones it could utilize in many types of terrain. Finally, and most importantly, it is not supported by the Navy CSAR community.

## CHAPTER V

### COMMENTS AND RECOMMENDATIONS

What is the bottom line of all this? Battle Group Commanders want the capability to do CSAR and Anti-terrorist missions with organic battle group helicopter assets. History has clearly shown that the only effective way to do this is with dedicated assets that are properly trained, manned and equipped. The only units that meet that criteria are the two Proposed HCS squadrons. However, they will most likely be in Ft. Mugu and Norfolk (their homeports) when the shooting starts. To mobilize one detachment would take approximately three days, and it would not be on station for up to 15 days. (18:109) The OPSEC requirements to move a CSAR Det are formidable, but they are necessary so as not to tip our hand to the enemy. The following are my proposals to give the Navy the CSAR/SPEC WAR capability it needs:

- Make the two HCS squadrons active duty units.
- Have them deploy in two Plane detachments aboard each carrier. (This would not increase present deck loading because eight H-60's, two CSAR and six ASW, equals the present six ASW H-3's deployed.)
- These aircraft would be multi-mission, by performing logistics missions, as well as taking their turn in the Plane Guard Pattern. However, they would periodically need to be shore based to train for the CSAR/SPEC WAR mission.
- Redesignate HC 9 to HCS 9 to become the CSAR fleet replacement squadron (FRS) and reserve CSAR "associate" squadron.
- Increase the HH-60H buy to outfit three vice two squadrons.
- Establish a Combat SAR Model Manager. Strike University is where it belongs but they have wanted no part of this. HC 9 has the CSAR expertise, but the administrative burden of such



an undertaking may be overwhelming. HC 16 is the CNO SAR Model Manager and has the administrative staff to support the CSAR responsibility. Full time subject matter experts from HC 9 (one O-3 and one E-6) would be required to augment the HC-16 staff. This arrangement would have the advantage of having all of SAR under one roof to Preserve standardization. This will become more important as the threat at sea intensifies. Another added benefit of the Pensacola, Florida location is that the Air Force's Special Ops school and the 1st Special Ops Wing is located at Hurlburt AFB at nearby Fort Walton Beach, Florida. The ranges at Hurlburt would be outstanding for training and exercises.

--Establish an OPNAV sponsor for search and rescue, both opposed and unopposed. This is mandatory if the rescue mission is ever to get the continued support it requires.

--Develop a CSAR manual. A joint service manual is to be produced by ALFA (Air Land Forces Agency). This document is necessary for joint operations and standardization.

--Develop a Navy CSAR tactics manual. There is no single Navy text that covers all CSAR tactics. The texts that do exist are from other services and are not always compatible with Navy operating Procedures.

Lastly, LCDR Sullivan had this to say: "The Vietnam War showed us that helicopter Pilots had the 'right stuff' for the CSAR mission, but they could not be successful when given the 'wrong stuff' with which to do it." (3:13) They are still being given the "wrong stuff."

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